

Proposal # 2001- <u>A-203</u> (Office Use Only)
---

**PSP Cover Sheet** (Attach to the front of each proposal)Proposal Title: Investigation of Tulare Basin Environmental Water SupplyApplicant Name: U.S. Fish & Wildlife Service, Division of Planning, Region IContact Name: Richard Hadley, Team Leader Acquisition PlanningMailing Address: 2800 Cottage Way, Suite W-1916, Sacramento, CA 95825Telephone: (916) 414-6507Fax: (916) 414-6512Email: Richard.Hadley@FWS.GOVAmount of funding requested \$ 764,176

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost \_\_\_\_\_

Federal cost \_\_\_\_\_

**Cost share partners?**\_\_\_\_ Yes \_\_\_\_ ☒ No

Identify partners and amount contributed by each \_\_\_\_\_

**Indicate the Topic for which you are applying (check only one box).**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Natural Flow Regimes     | <input type="checkbox"/> Beyond the Riparian Corridor                |
| <input type="checkbox"/> Nonnative Invasive Species          | <input type="checkbox"/> Local Watershed Stewardship                 |
| <input type="checkbox"/> Channel Dynamics/Sediment Transport | <input type="checkbox"/> Environmental Education                     |
| <input type="checkbox"/> Flood Management                    | <input type="checkbox"/> Special Status Species Surveys and Studies  |
| <input type="checkbox"/> Shallow Water Tidal/ Marsh Habitat  | <input type="checkbox"/> Fishery Monitoring, Assessment and Research |
| <input type="checkbox"/> Contaminants                        | <input type="checkbox"/> Fish Screens                                |

What county or counties is the project located in? Kern and Kings CountiesWhat CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible San Joaquin Valley

Indicate the type of applicant (check only one box):

- |  |  |
|--|--|
| <input type="checkbox"/> State agency                    | <input checked="" type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit                |
| <input type="checkbox"/> Local government/district       | <input type="checkbox"/> Tribes                    |
| <input type="checkbox"/> University                      | <input type="checkbox"/> Private party             |
| <input type="checkbox"/> Other: _____                    |  |

# Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

X

YES

                      
NO

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.

U.S. Fish & Wildlife Service

Lead Agency

3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

Development of joint NEPA/CEQA document (likely a programmatic EIS/EIR) is built into The project budget. This will likely be a document that is developed with multiple cooperating agencies.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

                      
YES

X  
NO

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

# Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land(i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

X  
YES

\_\_\_\_\_  
NO

2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

3. If YES to # 1, what is the proposed land use change or restriction under the proposal?

The project proposes development of a ~~programmatic~~ plan to improve flood control, storage and water delivery systems in the Tulare Basin to develop a water supply for environmental purposes. Specific designs would be developed after the programmatic plan.

4. If YES to # 1, is the land currently under a Williamson Act contract?

Yes  
\_\_\_\_\_  
YES

\_\_\_\_\_  
NO

5. If YES to # 1, answer the following:

Current land use

Primarily agriculture

Current zoning

Current general plan designation

\_\_\_\_\_  
\_\_\_\_\_

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

\_\_\_\_\_  
YES

\_\_\_\_\_  
NO

X  
DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?  
To be determined by planning process

8. If YES to # 1, is the property currently being commercially farmed or grazed?

X  
YES

\_\_\_\_\_  
NO

9. If YES to #8, what are

the number of employeesacre \_\_\_\_\_

the total number of employees \_\_\_\_\_

Unknown to be determined and environmental scoping and planning process

**B. EXECUTIVE SUMMARY - CALFED PROPOSAL**

---

**Project**                      ***Investigation and Development of Programmatic  
Tulare Basin Environmental Water Supply, Habitat  
Protection, and Flood Control Plan***

**Applicant:**                      California/Nevada Planning Office  
U.S. Fish and Wildlife Service  
2800 Cottage Way, Suite W-1916  
Sacramento, CA 95825  
Contact Person: Richard Hadley (916) 414-6507

**Participants and  
Contributors:**                      Bureau of Reclamation (Land Retirement Program), Natural Resource  
Conservation Service (Wetlands Reserve Program), U.S. Army Corps of  
Engineers, Central Valley Habitat Joint Venture, Tulare Basin Wetlands  
Association, California Department of Water Resources, California  
Department of Fish and Game, The Nature Conservancy, Ducks  
Unlimited, California Waterfowl Association

The CALFED Ecosystem Restoration Program has identified the need to acquire up to 200,000 acre feet of water dedicated for environmental purposes. The primary objective of this proposal is accomplishment of Central Valley Project Improvement Act (CVPIA) and CALFED environmental water supply goals by acquiring 150,000- 200,000 acre feet of reliable water and storage capacity in the Tulare Basin of the Southern San Joaquin Valley to be used for environmental and agricultural purposes, and to link development of this water supply and storage with the U.S. Fish and Wildlife Service (Service) ecosystem restoration objectives for the Tulare Basin. In addition to providing a reliable supply of water for environmental purposes, acquisition of this water and storage capacity would provide opportunities for improved flood control, protection of threatened and endangered species, capture and use of flood waters, and flexibility in transport and use of water through-out the Tulare Basin to benefit wildlife management and agriculture. Development of this additional environmental water supply would assist in achieving CVPIA and CALFED objectives by reducing the Tulare Basin's demand on higher quality San Joaquin River water and thereby assist with recovery of the Sacramento-San Joaquin Delta ecosystem.

This project proposes to investigate opportunities for accomplishment of the objectives described above by identifying issues of mutual concern amongst a broad range of stakeholders in the Tulare Basin and development of Programmatic Tulare Basin Plan Environmental Water Supply, Habitat Protection, and Flood Control Plan that addresses these issues in a comprehensive ecosystem based approach.

## **C. PROJECT DESCRIPTION.**

### **1. Statement of Problem**

The U.S. Fish and Wildlife Service's proposal to investigate development of a Tulare Basin environmental water supply while achieving habitat protection and local flood control goals for the Basin. The project is intended to benefit both the Tulare Basin and the San Joaquin Bay/Delta Ecosystems of the greater Central Valley of California.

**Tulare Basin Ecosystem** - The Tulare Basin is located in the southern portion of the San Joaquin Valley in the lower Central Valley of California. The San Joaquin Valley watershed contains approximately 8.5 million acres and encompasses approximately 20 percent of the land area of the state. Within this area, The Tulare Basin contains about 3.6 million acres, most of which is currently in agricultural or urban use.

Although the Tulare Basin is the driest region in terms of rainfall in the Central Valley, historically it contained the largest single block of wetland habitat in California, providing about 260,000 acres of permanent wetland and an additional 260,000 acres of seasonally flooded scrubland. During most years, the Basin functioned as a sink, where water from the Sierra Nevada flowed down streams into a series of shallow lake basins, including Tulare, Goose, and Buena Vista Lakes, providing extensive, quality habitat for resident and migratory birds and a variety of other wildlife.

Cultivation practices and irrigation operations associated with agriculture have had a significant impact on geography, soil properties, and water supplies. The San Joaquin Valley has the largest volume of land subsidence in the world due to ground water withdrawal. In some areas of the basin, poor soil drainage compounded by **high** salt levels and poor farming practices have seriously reduced the productivity of the land. For these various reasons, the profit margins for farmers have declined to a point that an increasing number have made the decision to retire their lands from farming.

Conversion of habitat to agricultural, industrial and urban uses has eliminated listed species from the majority of their historic range, and today the southern San Joaquin Valley has the highest concentration of listed species in the continental United States. Remaining habitat in the valley floor portion of the Tulare Basin includes freshwater emergent wetlands, claypan vernal pools, agricultural croplands and pasture, arid uplands, and riparian forest.

**Sacramento-San Joaquin Delta Ecosystem:** The development of irrigated agricultural lands in San Joaquin Valley and Tulare Basin through southward water diversions, has also resulted in a serious decline in water quality, natural habitats, and species within the Sacramento-San Joaquin River Delta ecosystem. In October 1992, Congress enacted the CVPIA, Title 34 of Public Law 102-575 to mitigate these losses. In 1994 the CALFED

Bay-Delta Program was established to supplement the CVPIA. Both are in response to the decline of the Sacramento-San Joaquin River Delta.

The following conceptual strategy has been developed to 1) meet the Department of the Interior obligations under the CVPIA, 2) accomplish the water quality and quantity goals of CALFED, and 3) meet the Service's Congressional mandates to protect and manage the nation's wildlife for the continued benefit of the American people.

**Conceptual Strategy** - In April 2000, the Service Director approved the *Preliminary Project Proposal to Conduct Detailed Planning on the Expansion of the Kern National Wildlife Refuge Complex and Establishment of the Tulare Basin Wildlife Management Area*. The proposal provides for detailed study of alternative means of protecting lands within the Tulare Basin. Protection would be accomplished through a combination of the Service's refuge land acquisition program, non-acquisition programs, and partnerships with other land management agencies and organizations.

The purpose of the proposed project is to protect and restore some of the last remaining vestiges of Tulare Lake, that was historically the largest freshwater wetland complex in the western United States, to promote the recovery of migratory bird populations in North America's Pacific Flyway, and to protect the Tulare Basin's remaining upland habitats which are of major importance to the recovery of seven federally listed threatened and endangered species. Project objectives also include creating habitat linkages, improving water quality, establishing partnerships, creating educational opportunities and public awareness, and diversifying habitat enhancement.

**Expanded Conceptual Strategy** - The Service is interested in expanding this study to include objectives of the both CALFED and CVPIA ecosystem restoration programs. Specifically, the Service believes that an environmental water supply could be acquired in the Tulare Basin in conjunction with land protection to benefit the San Joaquin River Bay-Delta Ecosystem.

In concept, an agricultural land base sufficient to produce and store the desired quantity of water would be retired through fee title or conservation easement acquisition. Cotton and alfalfa are the primary crops grown in the Tulare Basin. Based on a water duty of 4.0 acre feet of water per acre for these two crops, a total of 37,500 - 50,000 acres of cotton or alfalfa production land and water rights would need to be acquired. This equals approximately 59 - 76 sections of land. An area meeting this criteria has been identified in the southern Tulare Lake bed just north of and adjacent to the privately owned south Wilbur Flood Area. Once acquired this land would be placed in a fallow state and would be diked on all sides with levees capable of retaining water not to exceed three to four feet average depth.

During normal or below normal years of precipitation, the area would remain *dry* with a possibly planting of cover crops of seed-producing plants preferred by neo-tropical migrant bird species. During years of high precipitation when runoff from low elevation Sierra Nevada foothill creeks such as Poso Creek are a problem, these flood flows could be diverted to this block of retired lands for temporary storage. These flows normally occur from mid-January through early April. Beginning with early pre-irrigation of spring planting in April and May, these stored flood waters could then be utilized for irrigation purposes or ground water recharge.

Upland areas essential to the recovery of federally listed species within the Tulare Basin study area would be protected through a combination of fee acquisition and conservation easements.

Similarly, remnant wetland systems of the Tulare Basin would be protected through a variety of land protection options. The water supplies and storage capabilities generated by land retirement and flood water capture under this proposal would be used to enhance and manage the basins wetland systems targeted for protection.

Other flood control and water detention opportunities within the basin have similar potential for development as an environmental water supply including the potential coupling of the Arroyo Pasajero flood control project and acquisition and protection of West Lake Farms. Use of Arroyo Pasajero waters for environmental purposes would be contingent upon development of solutions for current water quality problems associated with this watershed. The Corps of Engineers is also evaluating two other projects to increase flood protection and to increase lake storage in the Western Sierra foothills for irrigation.

Through this proposal the Service seeks to link Tulare Basin flood control, habitat protection, and establishment of a CALFED/CVPIA environmental water supply. To orchestrate this regional effort will require development of local support and a broad base of partners. This proposal will specifically focus on the following hypothesis:

- The Service's Tulare Basin habitat protection program can be achieved with additional benefits to local flood control and establishment of a CALFED and CVPIA environmental water supply.
- Achievement of the above objectives will require development of local and county support plus a broad set of private, State and Federal partners. Partnerships will be formed through identification of stakeholders and investigation of issues of mutual concern.
- A Memorandum of Understanding amongst stakeholders that outlines key issues to be addressed and goals for the partnership group is critical to overall goals of habitat

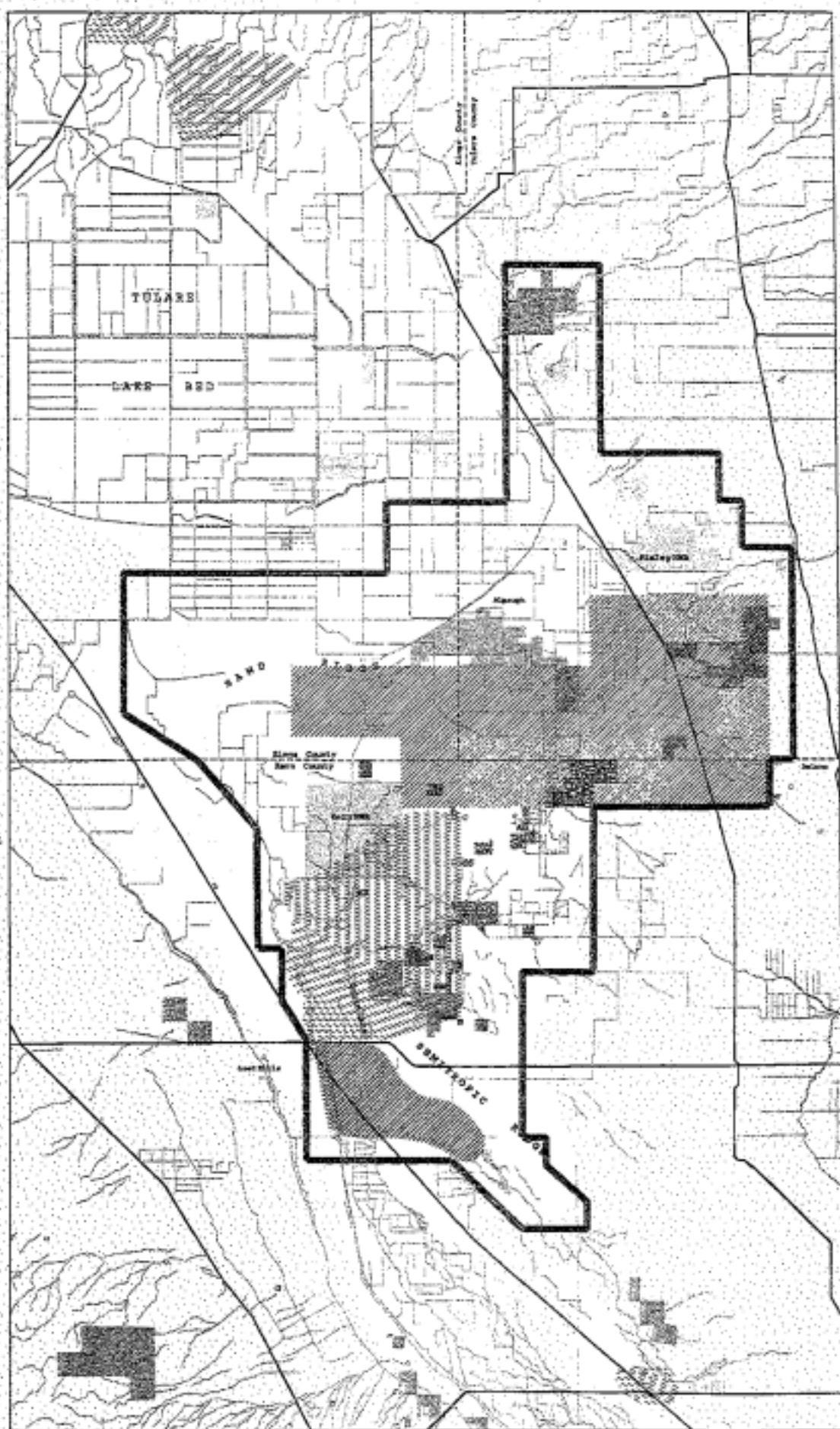
# APPENDIX 1

## Tulare Basin Study Area

- USFWS Land
- CDFG Land
- MRP Land
- Land Retirement
- S22 Land
- CDFG Area of Interest
- Goose Lake Bottoms Private Wetlands
- USBLM Land
- Private Wetlands
- Private Protected Habitat
- Proposed Linkage Areas \*
- Proposed Specialty Reserve Areas \*
- Drainage Problem Area \*
- Study Area Boundary
- Interstate Highway
- State Highway

\* Special Field Inventory Map Copyrighted by the U.S. Fish and Wildlife Service, 1997.

SCALE 1:90,000





protection, flood control, and establishment of an environmental water in the Tulare Basin.

- A Programmatic Tulare Basin Plan focused on increased land protection, improved local flood control, and acquisition of an environmental water supply to meet CALFED and CVPIA objectives can be developed with a broad base of stakeholders and partners.

1. Proposed Scope of Work - The Service proposes a seven step process leading to the development of a Programmatic Tulare Basin Plan. The Service estimates that implementation of this project would require a minimum of two years.

Task 1. Initiate Pre-Scoping to Identify Stakeholders and Identify Issues of Mutual Concern. The methods used to identify key stakeholders and solidify inter-agency collaborations would include the following steps:

- Interview Service staff and representatives of other supporting agencies to determine initial points of contacts for specific constituencies (e.g. local and county government, farm bureaus, environmental groups landowners, etc.)
- Initiate contacts with identified individuals and groups, based on initial recommendations. Inform organizations of Service goals for the Tulare Basin, identify issues of mutual concern, and assess their interest in being involved in the process. Follow-up on referrals by these individuals to other individuals and entities who might have an interest.
- Continue on-going contacts with identified agency staff (Federal, state, and local entities such as the Bureau of Land Management, California Department of Fish and Game, California Department of Water Resources, California Department of Conservation, King and Kern Counties, local governments, Farm Bureaus, and environmental organizations

*Expected Products*

- Memorandum summarizing the results of start-up meetings and interviews
- Contact list of stakeholders and individual participants
- Information for development of information packages

Task 2. Integrated Stakeholder Involvement through Formal Establishment of stakeholders Group. Subsequent to initial and follow-up contacts the Service and its partners would seek to create a durable set of relationships with key stakeholders in the planning area. Specific steps to be achieved under this task would include:

- Coordinate stakeholders constituency meeting (s) to convene representatives of stakeholders groups and key individuals. The purpose of the meetings would be to present overall process, solicit information on issues of mutual concern, solicit information on potential data sources, and determine if a group structure should be formed and if so what type of structure is appropriate.
- Finalize the design of the involvement program based on both the expressed issues and the level of interest and commitment of stakeholders.
- Develop Memorandum of Understanding regarding issues of mutual concern and methods by which stakeholders agree to participate in the process toward achieving mutual objectives.

#### *Expect Products*

- Summary of issues and potential strategies for development of solutions
- Memorandum summarizing results of stakeholder meetings
- Refined integrated public involvement program design

### **Task 3. Data Collection and Identification of Data Needs**

- Review, evaluate, and compile existing project and geographic-based data and information for use in the planning data base.
- Identify data needs including: land ownership, designated land uses (county/city general plans), current land use, water quality and rights, natural resource data (T&E species, groundwater, wetlands, contaminates, etc.)

#### *Expected Products*

- List of available geographic-based data that is relevant to the project
- List of necessary data that is unavailable or incompatible with project database
- Establishment of preliminary draft GIS data base.

### **Task 4. Refine Tulare Basin Planning Goals and Objectives Based ,onIntegration of Stakeholders Input.**

- Ensure that the diverse perspectives within the stakeholders group are integrated into the goals and objectives for the planning project
- Facilitate the collaboration of different groups and agencies in the identification of project priorities.
- Develop initial concepts and alternatives to address issues of mutual concern.

*Expect Products*

- Memorandum(s) summarizing results of collaborative effort to identify goals and objectives
- List of prioritized specific goals and objectives for the project
- List of potential conceptual solutions or alternative approaches to issues

**Task 5. Initiate Formal Public Scoping for Programmatic Tulare Basin Plan**

- Initiate formal public scoping period with facilitated public meetings to identify any issues that may not have been presented by the stakeholders group.
- Facilitate public workshops to present the program goals, objectives, and conceptual solutions to identified issues, respond to questions, and receive further public input.

*Expected Products*

- *Summary* of additional public involvement including identified issues and suggested management approaches.
- Expanded list of stakeholders, interested individuals, and organizations.

**Task 6. Develop Programmatic Tulare Basin Plan and Environmental Compliance**

- Create a single programmatic document that identifies alternatives for land protection, flood control, and acquisition of an environmental water supply to meet both regional, CALFED, and CVPIA objectives.
- Publish a sound science based plan and environmental compliance document (NEPA/CEQA) that reflects the views and concerns of both involved agencies and the constituencies that have an interest in the project.

*Expected Products*

- Draft Programmatic Tulare Basin Plan for improved habitat protection, flood control, and development of an environmental water supply.

**Task 7. Public Review of Environmental Document, Final Plan and Decision**

- Circulate programmatic plan and NEPA/CEQA documentation for public review
- Facilitate public input through formal public meetings and opportunities for written comment.
- Prepare and process response to public review and issues decision document.

*Expected Product*

- Final Programmatic Tulare Basin Plan for improved habitat protection, flood control, and development of an environmental water supply.

**D. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities**

**A. ERP Goals and CVPIA Priorities.**

**Recovery of Irrigation Water** - By removing between 37,000 - 50,000 acres from cotton/alfalfa cultivation, a total of approximately 150,000 - 200,000 acre feet of irrigation water could be saved per year. This water which would normally be provided by either the Central Valley Project or the California Aqueduct could be made available for environmental projects through-out the Central Valley including the Sacramento-San Joaquin River Delta.

**Flood Water Control and Storage:** Currently, Poso Creek flood waters are channelized to the Kern NWR at which point the channel terminates. The refuge is capable of managing up to 1,000 cfs of flood flows but has no legal method for discharge of water from the refuge once the refuge reaches holding capacity. When capacity is reached, the Poso channel is blocked and the creek levees break causing extensive flooding of private property and T&E species habitat both on and off the refuge. During extensive flood events, damage to private property, roads and farmland is considerable. This project would mitigate or eliminate much of this flood damage.

If land within the Tulare Lake Basin is made available for the storage of Poso Creek and other regional flood waters, this uncontrolled flooding will be eliminated and turned to beneficial environmental use. As flood waters reach the Kern NWR, the refuge could act as a flood surge basin, absorbing up to 8,000 acre feet of flood flows, and then gradually release this water north through the Goose Lake Canal to the lake basin for temporary storage. These flows could then be utilized for beneficial purposes such as irrigation and wildlife habitat. When released for irrigation, this water could replace California Aqueduct, or CVP water that would normally be drawn from the Delta or Sierra Nevada reservoirs. Additionally, there is a possibility that this stored water could be used for irrigation purposes replacing water that could now be placed in ground water storage for later environmental uses.

By increasing water availability and providing additional flexibility for its distribution in the Tulare Basin, increased flows in the San Joaquin River could be directed north to the Sacramento-San Joaquin Delta to improve water quality, and facilitate recovery of federally listed fish species and their habitats.

B. Relationship to Other Ecosystem Restoration Projects.

Threatened and Endangered Species Benefits: When flood waters are contained on Kern NWR and the flood waters breach the Poso levees, T&E species and their associated habitats are destroyed. Poso Creek flooding has significantly reduced the population of blunt-nosed leopard lizards and Tipton's kangaroo rats on and adjacent to the Kern NWR. Development of an adequate detention systems for flood waters reduces the risk of levee failures, and provides improved protection for listed upland species habitats. Further protections for listed species could be achieved through a combination of land acquisition along the basin's creek system and construction of an improved set-back levee system. Additional protection of threatened and endangered species habitat in the Tulare Basin would make a major contribution to the goals of the *Recovery Plan for Upland Species of the San Joaquin Valley* (1998)

Migratory Waterfowl and Shorebird Benefits: New environmental water storage capacity would provide a more reliable source of water that could be delivered to Tulare Basin wetlands when needed, and in a quality and quantity that would allow for improved wetland management and opportunities to enhance and restore the basin's dwindling seasonal wetlands. Restoration of the basins seasonal wetland system would benefit migratory waterfowl and shorebirds of the Pacific Flyway and would contribute significantly to the goals and objectives of the *Central Valley Habitat Joint Venture and the North American Waterfowl Management Plan*.

C. Previous Recipients of CALFED or CVPIA Funding. The U.S. Fish and Wildlife Service has received CALFED or CVPIA funding for previous land protection planning associated with the Proposed North Delta National Wildlife Refuge.

E. Qualifications

The U.S. Fish and Wildlife Service, Region 1, Planning Division is responsible for development of major land acquisition and refuge management plans for all refuges of the National Wildlife Refuge System in the states of California, Hawaii, Nevada, Oregon, Washington. The Division has a expert staff of planners with extensive experience in management of complex land protection and management planning projects. The Division also has extensive GIS capabilities and can draw upon the wildlife and natural resource capabilities of the Service's larger work force and contractors.

F. Cost - Budget. (See attached annual budget proposal for details by task)

G. Local Involvement: The list of supporters for this project is noted in part A of *this* proposal and includes strong local support. A primary objective of this proposal is to

Table 1. Budget Summary - Investigation and Development of Programmatic Tulare Basin Environmental Water Supply, Habitat Protection, and Flood Control Plan

Year	Task	Direct Labor Hrs	Subject to Overhead						Exempt from Overhead		Total Cost
			Salary	Benefits/Overhead	Travel	Supplies	Service Contracts	Overhead (show %)	Equipment	Graduate	
Year 1	Task 1	1,130	\$22,600	\$6,780	\$5,000	\$2,000	\$50,000	3%	\$4,000		\$90,380
	Task2	1,130	\$22,600	\$6,780	\$5,000	\$1,000	\$64,000	3%			\$99,380
	Task3	780	\$15,600	\$4,680	\$1,000	\$4,000	\$12,000	3%			\$37,280
	Task4	1,130	\$22,600	\$6,780	\$3,000	\$1,000	\$34,000	3%			\$67,380
	Task5	377	\$7,530	\$2,259	\$3,000	\$3,000	\$15,000	3%			\$30,789
Total Cost Yr. 1		4,547	\$90,930	\$27,279	\$17,000	\$11,000	\$175,000	3%	\$4,000		\$325,209
Year 2	Task 5	377	\$7,530	\$2,257	\$2,000	\$2,000	\$12,000	3%			\$25,519
	Task 6	3,040	\$60,800	\$18,246	\$4,000	\$30,000	\$240,000	3%			\$353,040
	Task7	1,130	\$22,600	\$6,780	\$5,000	\$2,000	\$24,000	3%			\$60,380
Total Cost Yr. 2		4,547	\$90,930	\$27,279	\$11,000	\$34,000	\$276,000	3%			\$438,967
Total Project Cost			\$181,860	\$54,558	\$28,000	\$45,000	\$451,000	3%	\$4,000		\$764,176

develop an even strong and broader base of local support for the project starting with representatives of local communities, plus Kern and Kings Counties.

**H. Compliance with Standard Terms and Conditions** As a Federal agency the Service is required to comply with the Standard Terms and Conditions.

**I. Literature Cited**

American Farmland Trust. 1995. *Alternatives for Future Urban Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers*. Washington D.C. 18pp.

Arroues, Keny D. 1999. *Soil Properties Altered by Agricultural Operations which Affect Soil Classification and Management in California's Great Central Valley*. U.S. Department of Agricultural Natural Resource Conservation Service. Hanford, CA.

Fleskes, Joe. 1999. Telephone Conversation 4/30/99. U.S. Geological Survey, Biological Research Division. Dixon, CA.

Jones and Stokes Associates, Inc. 1988. *Private Wetlands in the Kern-Tulare Basin, California: Their Status, Values, Protection, and Enhancement*. Sacramento, CA.

Knopf, F. L., and J. R. Rupert. 1995. *Habits and habitats of Mountain Plovers in California*. *Condor*. 97:743-751.

Kroeber, A. L. 1976. *Handbook of the Indians of California*. Dover Publications. New York, NY.

Mauer, Thomas. 1999. Personal communication, May 11, 1999. Contaminants issues in the Tulare Basin. U.S. Fish and Wildlife Service. Sacramento, CA.

Mayer, K. E. and W. F. Laudenslayer, Jr. 1988. *A Guide to Wildlife Habitats of California*. California Department of Forestry and Fire Protection. Sacramento, CA.

Moore, B., et. al. 1990. Fish and Wildlife Resources and Agricultural Drainage in the San Valley, California. Volume I. San Joaquin Valley Program. Sacramento, CA.

Moore, B., et. al. 1990. Fish and Wildlife Resources and Agricultural Drainage in the San Valley, California. Volume II. San Joaquin Valley Program. Sacramento, CA.

San Joaquin Valley Biological Technical Committee. 1993. *A Biological Framework for Natural Lands and Endangered species in the southern San Joaquin Valley*. Bakersfield, CA. 47pp.

- Shuford, W. D., G. W. Page, and J. E. Kjelmyr. 1998. *Patterns and dynamics of shorebird use of California's Central Valley*. Condor 100:227-244.
- Shuford, David. 1999. E-mail correspondence 5/3/99. Shorebird distribution in the Tulare Basin. Point Reyes Bird Observatory. Stinson Beach, CA.
- Smith, David. 1999. Telephone conversation 5/99. Private Wetlands in the Tulare Basin. California Department of Fish and Game. Sacramento, CA.
- The Nature Conservancy. 1998. *Draft San Joaquin Valley and Foothill Ecoregional Plan*. The Nature Conservancy. San Francisco, CA.
- Uptain, Curt. 1999. Personal communication 5/99. Listed species occurring within the proposed project area. Endangered Species Recovery Program. Fresno, CA.
- U.S. Department of the Interior. 1999. *Administrative Draft, Environmental Assessment, CVPIA Land Retirement Program Demonstration Project*. U.S. Bureau of Reclamation. Fresno, CA. 89 pp and appendices.
- U.S. Bureau of Reclamation. 1992. *Central Valley Project Improvement Act, Title 34, Public Law 102-575*. Washington D.C.
- U.S. Fish and Wildlife Service. 1990. *Central Valley Habitat Joint Venture Implementation Plan*. Sacramento, CA.
- U.S. Fish and Wildlife Service. 1996. *Draft Implementation Plan for the Central Valley/San Francisco Bay Ecoregion*. Sacramento, CA.
- U.S. Fish and Wildlife Service. 1998. *Recovery Plan for Upland Species of the San Joaquin Valley, California*. Region 1, Portland, OR.